OCTOBER 1992

RESEARCH PAPER TEN

THE RELATIONSHIP BETWEEN THE FORMAL AND INFORMAL SECTORS OF THE FINANCIAL MARKET IN GHANA

ERNEST ARYEETEY

NOMIC RESEARCH CONSORTIUM

POUR LA RECHERCHE ECONOMIQUE EN AFRIQUE

The relationship between the formal and informal sectors of the financial market in Ghana

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Ernest Aryeetey
University of Ghana

AERC Research Paper 10
Centre for the Study of African Economies, Oxford
October 1992

Published by Centre for the Study of African Economies,
University of Oxford,
St Cross Building, Manor Road,
Oxford, OX1 3UL,
England.

for the African Economic Research Consortium,
P.O. Box 47543, Nairobi, Kenya.

Printed by Herage Graphics Ltd.
P. O. Box 75257, Nairobi, Kenya..

British Library Cataloguing-in-Publication Data.
A catalogue record for this book is available from the British Library.

ISBN 1-897621-03-5

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Preface

Early in 1989, a group of AERC researchers interested in studies of African financial markets, with a special emphasis on the informal sector, began several country studies that were scheduled to be completed in three phases. For the three phases it was agreed to:

1. characterize the informal sector, thereby analysing the rationale for its existence, estimating its size, and providing a detailed description of its operation on the financial market;

2. analyze the relationship between the formal and informal segments of the financial market, if any; and

3. establish the efficacy of macroeconomic policies, bearing in mind the existence of a strong informal financial sector.

A high degree of characterization of the informal sector was achieved in the first phase of the Ghana study (Aryeetey and Gockel (1990)), following a study of 1000 market women in three Ghanaian cities. Repeated observations that in fact there were not two financial markets, but one highly fragmented one encouraged a deeper probe into the relationship between the different segments. This report is the outcome of the second-phase efforts in that direction. We use the activities of moneylenders to represent the lending side of the informal sector, while that of *susu* collectors represents the savings-mobilization capabilities of the sector. This does not suggest that they are the only forms the informal sector takes, but linkages with the formal sector are best portrayed through them.

I Introduction

A number of linkages between the formal and informal sectors of the financial market have been observed in Ghana (Aryeetey and Gockel (1990)). These linkages were observed both in savings mobilization and in credit allocation. What is not yet clear is how significant these linkages are for the development of the entire financial sector of the economy, and therefore the extent to which action taken in one financial sector may have repercussions in another. This may partly depend on whether the linkage relationship is complementary or competitive. Knowing the effect of this relationship on the financial market could assist in directing government policy towards them.

While it is sometimes believed that most of the urban demand for savings and credit facilities from informal financial organizations substitutes for demand from formal sources, elements of complementarity may also be present in this relationship (Aryeetey and Gockel (1990)). In rural areas, there is little demand for savings and credit facilities because of the lack of formal institutions and few complementary relationships can be observed.

One fact emerging from the research to date is that while the financial market is extensively segmented, demand for credit or savings facilities in one sector cannot always be said to be exclusive to that sector. In fact, the linkages between the sectors arise out of this "non-specific" demand. Many people who would normally use the services of the formal sector, such as urban public-sector employees, find themselves compelled to use the services offered by the informal sector to complement what they have received or may receive form the formal sector. They also sometimes make a substitution if the price of credit from the informal sector is lower, as will be the case in borrowing at near-zero interest from friends. Similarly "normal" informal savers, such as rural dwellers, may begin saving on the formal circuit if an opportunity for obtaining cheap credit comes up by way of a government or NGO-sponsored rural finance project. Here the formal credit substitutes for the expensive informal credit.

Aside from the direct movements of "consumers" across sectors, there are situations where institutional relationships arise. The first is the situation where *susu* collectors daily deposit savings with commercial banks, as observed by Aryeetey and Gockel (1990) and confirmed by Seibel (1989). Another less commonplace example is the situation of moneylenders borrowing money from banks to support their lending business.

The above relationships notwithstanding, accurate categorization of supply and demand for financial services is difficult in view of the diverse nature of institutions and individuals involved in the sale and purchase of financial services, as well as the diversity in public attitudes to the different services. It may, therefore, be presumed that different demand and supply structures for each sector would ensure the continued segmentation of the market and have a bearing on the relationship between them; but in what way?

One fact which is quite clear is that the "non-specific' element of the demand in both sectors, as well as their marginal and average costs, has a crucial role to play in price determination within each. What is not clear, however, is whether the two prices have any direct or indirect relationship with each other. In other words, to what extent can changes in one sector be expected to influence changes in the other? Also, under what conditions will the separation of the markets be maintained, even if only partially? The first phase of our work suggested that aside from the operating costs of the agents involved, a number of factors, both economic and non-economic, may be crucial. Thus, for example, such factors as high transaction costs in seeking formal financial services, as well as some "political" costs (e.g. government tampering with private savings in 1982, among others), and also direct institutional barriers, were identified as influencing the continued separation of the market (Aryeetey and Gockel (1990)). "Political" costs, for example, tended to undermine confidence in the formal system and thereby keep away many people who otherwise would have patronized it. Institutional barriers also arose from numerous bureaucratic requirements that could not be readily fulfilled by those who needed financial services and who could probably have put some credit to sound economic use (see Aryeetey and Hyuha (1990)).

While it is certain that price determination processes would give a strong indication of these relationships if properly investigated, we do not go that far in this paper. Rather, we devote our attention to studying the different scenarios under which activity in one segment has been observed to lead to "reactions" in the other.

Objectives, methodology and scope

It must be emphasized that this study is part of an on-going attempt to move studies of informal financial markets from the purely descriptive realm to one of conceptualizing observed relationships based on earlier descriptions of the financial system. The results should enhance the use of policy tools applicable to a broader spectrum of the financial system. Thus, this work seeks to:

1. explain the significance of the issue of complementary and competitive relationships between formal and informal segments of the credit market, looking at the behaviour of lenders and borrowers under different situations, and the general impact of these on the provision of credit within the system; and

2. establish the importance of direct links between units in the formal and informal segments of the financial market with regard to savings mobilization, the process of intermediation and of growth in the financial system e.g. through the use of banking facilities by *susu* collectors.

To do this, the study applies both descriptive and analytical methods to observed trends in the relationships. In view of the abundance of primary data which indicate the responses and attitudes of savers, borrowers, small investors, etc., and the dearth of suitable macroeconomic data, the analysis is limited to conceptualizing expected behaviour of various actors and assessing the extent to which observed behaviour conforms to these. Such observed behaviour is then explained and policy implications highlighted.

The work is presented in four sections. Following this introductory section, Section II studies linkages in the credit market, based on three scenarios of (a) a competitive relationship between the two segments; (b) a complementary relationship between them; and (c) the formal sector channelling its resources through the informal sector in order to reach borrowers. Section III studies the observed linkage in savings mobilization, highlighting the use of deposit facilities of banks by *susu* collectors in Accra. In Section IV, the policy implications of the above observations are discussed.

Data utilized for the study

In this study, data collected in 1989 on the financing of trading activities of 1,000 market women in Accra, Kumasi and Takoradi are supplemented with data obtained through interviews with 100 small entrepreneurs at Koforidua, Nsawam, Nkawkaw and Asamankese (medium-sized towns in the Eastern Region of Ghana) for the study of competitive and complementary relations in the application of credit in Section II. These data were collected in August 1990. For our analysis in Section III, data were obtained from interviews conducted in January 1991 and completed questionnaires from 151 *susu* collectors, as well as information from various commercial banks on the balances of *susu* collectors.

Literature review

It has been suggested that the link between the formal and informal financial markets might be weak, and that, with economic growth and development, the informal sector would tend to diminish in size and in importance (Ghatak (1981)). This suggestion needs to be treated with some reservation. Whereas the significance of the link for both sectors has not yet been firmly established, there is evidence that the formal sector in Ghana relies extensively on the informal sector for savings mobilization (Aryeetey and Gockel (1990)). This link forms the basis of the analysis in Section III. Our evidence suggests that the informal sector grows and adapts itself to changing situations without losing its major characteristic of flexibility. Thus the sector remains strong at all times.

Most of the "new structuralist" discussions on the relative merits of the McKinnon-Shaw proposals attach much importance to what they see as a strong relationship between the formal and informal financial sectors (see van Wijnbergen (1983)(1985); Taylor (1983); Lim (1987)). New structuralists assume that, following financial liberalization, the use of credit for financial working capital would suffer from the rising cost of credit thus pushing up prices under monopolistic conditions. This results in a stagflationary process which can only be removed if there is residual financing from the informal sector. However, lending from the informal sector would depend, among other things, on the nominal deposit rate and the rate of inflation, assumed exogenous in the short run. Similarly growth in time and savings deposits would depend on these rates.

Aryeetey *et al.* (1990), however, did not observe a particularly strong relationship between deposit rates and portfolio choice in the Ghanaian financial system. While real deposit rates had a positive and significant effect on the average propensity to save, a low coefficient deprived it of any power in influencing how much households would save with changes in the real rates. It is likely, therefore, that interest rates *per se* are irrelevant in influencing savings mobilization at present. This assertion is supported by the savings practices in the informal market where savers would rather pay a day's saving to a *susu* collector (in order to make use of the facility). We suggested in the first phase of our work that the relationship between the two markets on the savings side is strongest via the expectations of "non-specific" demand with credit availability, and on the lending side via the opportunity and other costs involved in lending. In other words, people save where they think they can find credit and lend if they cannot invest their money elsewhere.

Finding an appropriate theoretical framework to study the phenomena described above is not easy. Thus, for example, models of equilibrium asset pricing for segmented and integrated financial markets, such as that offered by Eun and Janakiraman (1986), have not been particularly helpful because the degree of sophistication required of the capital market, and the complexity of the data required, still remain beyond the scope of the Ghanaian financial system. Also, attempts to study the relationship as an application of a general equilibrium model to a distorted economy with parallel markets are discouraged by the fact that underlying such an approach is the assumption that the informal market may have resulted from a repressive policy which forces excess demand to spill over into the other (see Azam and Besley (1990)). While this may be partially true in the Ghanaian case, particularly with some urban demand for credit, the informal sector in Ghana has done relatively well in these days of formal financial "liberalization" and direct efforts to encourage the formal system (Aryeetey and Gockel (1990)). Thus, even though the approach holds some hope for a further study of price determination, its usefulness for the present objectives is limited.

A number of attempts to study the links between formal and informal financial markets have been based on appraisals of efforts to institutionalize rural credit facilities. Underlying these studies has been the assumption that the high prices of rural credit were attributable to monopoly profits accruing to moneylenders in such areas. In order to reduce the price of credit, the power of the monopolist moneylender has to be reduced, thus prompting governments to set up institutions to compete with moneylenders. Contrary to expectation, however, and as observed by Hoff and Stiglitz (1990), moneylenders continue to exist and continue to apply interest rates which are much higher than those of the formal institutions, while the latter have difficulty with repayment of loans and often require recapitalization initiatives. The situation is similar in Ghana where rural banks were created on similar premises. In studying how these two co-exist in rural areas, the linkage is inevitably pursued on the lending side.

The World Bank devoted the whole of its September 1990 issue of *The World Bank Economic Review* (WBER) to various studies of rural credit markets. All the articles were written in "the framework of imperfect information paradigm" (Hoff and Stiglitz (1990) pp. 235). It is explained that this new paradigm is the result of major advances in the theoretical understanding of the workings of credit markets. They emphasize the problems of imperfect information and enforcement in explaining how lenders and borrowers will behave in relation to the two segments of the credit market under particular circumstances. The actions of lenders depend on the amount of information they have about their clients and the enforcement power they possess. It is the different degrees of information and enforcement power that enables formal and informal lenders to approach borrowers differently. Thus, the ability of the informal moneylender to a) perform a better screening of clients, b) possibly offer better incentives to make repayment more likely, and c) solve the enforcement problem by compelling repayment, ensures that

> "the moneylender's power is unlikely to be broken by the entry of institutional credit, unless the new institutions themselves find substitutes for the direct mechanisms used by moneylenders to overcome the problems of screening, incentives, and enforcement" (Hoff and Stiglitz (1990) pp. 238).

Among the articles in this edition of the WBER, one of the most relevant to our study is that by Bell (1990) which puts together the effects on prices and term structures of loans resulting from linkages between formal and informal lenders. In this study (based on rural India), Bell assumes that informal lenders compete with state agencies (such as co-operatives and banks), once these have been created, to reduce the influence of money-lenders. He then goes on to establish four different scenarios for rural lending involving moneylenders and/or institutional lenders and determines how they affect the welfare of the borrower. The first is one of moneylenders operating in the absence of state agencies; the second is exclusive institutional loans or institutional lenders operating in the absence of moneylenders. With these two scenarios, he attempts to establish equilibrium in the credit market with exclusive contracts, relying on such concepts as the iso-expected profits of the moneylender, the iso-expected net income of the borrower, the notional individual credit demand and notional supply, and the borrowers' opportunity set when dealing with rationing banks. He considers the situation of the moneylender being either monopolistic or operating in a market with free entry. By and large, the outcome of these two scenarios depends on whether institutional credit is rationed at the regulated rate of interest.

In the third scenario of non-exclusive institutional contracts, borrowing from the informal sector is usually considered to occur after the borrower has failed to find formal credit. This is supported by empirical evidence and is not any different from some observations in Ghana. In this situation, a spillover from the formal to the informal segment of the market will occur so long as there is formal rationing at a fixed interest rate and lenders find it profitable to lend after screening the borrower.

In the fourth scenario, moneylenders act as intermediaries for institutional lenders. In this situation, the cost of funds for the moneylender will fall. The impact on his clients will depend on whether he is a perfect competitor or a monopolist. In the case of perfect competitors, the entire gain from the fall goes to borrowers, while it is shared between lender and borrower under monopolies.

On the basis of his analysis and conclusions (which suggest that the presence of the informal moneylender in the credit market does not necessarily have a negative impact on the borrower), Bell made a number of policy proposals including (a) the need to use the knowledge of informal lenders in the formal sector, (b) the need to interlink institutional credit with the marketing of goods and the supply of inputs, (c) the need to remove restrictions on the trader-moneylender, and finally (d) the need to use direct measures to raise incomes in undeveloped areas.

The relevance of Bell's work to our own study is the framework it provides for analysis in the third and fourth scenarios, and we make use of this in the next section. These relationships were observed in the first phase of our work and are studied here with our own data. In spite of the valuable insights offered by Bell and others, it would appear that the ability of the moneylender to meet the credit needs of borrowers is exaggerated. This would certainly be so in the Ghanaian context, as we showed earlier (Aryeetey and Gockel (1990)).

II Linkages between formal and informal segments of the Ghanaian credit market

Three possible linkages with the credit market are possible. The first is one where the application of formal credit competes with the application of informal credit in the finance of businesses. The second is where the two are applied in a complementary manner by businesses. The third is where informal credit suppliers act as conduits or intermediaries between formal lenders and borrowers.

This section considers these three possible linkages in the credit market in terms of their prevalence and also the impact on borrowers. In this situation, equilibrium will be measured by what decisions potential borrowers make, given the information and opportunities available to them. Before doing that, however, we digress to describe some characteristics of potential users of credit used for the analysis in this section.

Some characteristics of small entrepreneurial credit users

The 100 entrepreneurs interviewed (of whom 12 were female) were between the ages of 24 and 64, with a mean of 40. They were engaged in such diverse activities as commercial poultry rearing, concrete-block manufacture, transport, trading in household goods, trading in construction materials, trading in chemicals and other pharmaceutical products, equipment repair (including auto-works, welding, bicycle repair, etc.), building and road construction, and food processing. Most of them were involved in more than one activity, the significance of which will be made clear in our description of financing techniques. While seven enterprises operated as partnerships, eight were family businesses, and the remainder operated as sole proprietorships. At the time of the survey (August 1990), the enterprises had been operating for between 1 and 42 years, with a mean of 12 years.

While in a few cases entrepreneurs had gone into the activity by inheriting the establishment, the profit motive appears to have been the over-riding factor for engaging in a particular business. Most of the entrepreneurs (60 per cent) started their businesses with capital provided from their own savings. Credit (mainly from friends/relatives) was used to start the business in only 12 per cent of the enterprises studied.

Being mainly micro-enterprises, employment was limited. About 60 per cent of the businesses had no paid employees at the beginning of their operations, and this situation had not changed for 55 per cent at the time of the study. Many of those who began with paid employees now have none because of declining activity. As many as 50 per cent of the entrepreneurs indicated that output between the year of establishment and the time of survey had not grown. This is similar to the observations of Steel and Webster (1990) where most of the micro-enterprises studied suffered decreases in output after 1983. Thus, at present the average number of employees per firm is one. This low level of employment was in spite of the fact that periodic investments in the plant or establishment were carried out. Indeed, about 60 per cent of the businesses undertook significant investment purchases in 1989, and more than 75 per cent recorded profits (ranging from 50 to 1,000 per cent) over total variable costs in 1989-90. The picture generally portrayed is one of much confidence in the economic viability of the enterprises if assured of adequate investment capital. The entrepreneurs saw their enterprises as ones that could be supported without much risk. This optimism about the future of small enterprises if assured of adequate support is also shared by Steel and Webster (1990).

Relationships between micro-enterprises and banking institutions

All the 100 entrepreneurs operated bank accounts on behalf of their enterprises. In 52 per cent of these cases, demand deposits alone were run, while another 21 per cent operated only savings deposits. The remainder operated both types of accounts (only one enterprise operated a fixed deposit).

Most of the accounts had been operated for long periods (usually starting from the year in which the enterprises were begun and averaging 7.5 years), thus giving banks ample opportunity to assess the financial worth of the enterprises, if not the returns on their projects.

With one exception, all the enterprises had applied for bank credit at one time or another since 1985. The average number of applications was two per enterprise. In almost 50 per cent of these cases, long-term credit (more than one year maturity date) was being sought, while the other half sought mainly overdraft facilities. In 49 cases, credit was sought to expand plant size, while 36 wanted credit to purchase raw materials. Only 2 per cent had wanted bank credit to start their businesses.

Another striking feature of the relationship between these small enterprises and formal banking institutions was that only one out of the 100 received the full loan applied for. In 26 cases, only a part of the original amount applied for was granted, while the remaining applications were rejected.

Use of informal financial services by small entrepreneurs

While it was established in the first phase of the research that market women in both rural and urban parts of Ghana used informal facilities for saving (77 per cent), only 20 per cent of these other micro-entrepreneurs did the same. For those who did, saving was done with the new large *susu* companies which operate on the same lines as the savings and loan associations of America and elsewhere. It must be pointed out, however, that 80 per cent of those not presently saving with the *susu* system had done so earlier. Interestingly, many of these micro-entrepreneurs in the Eastern Region who saved with an informal organization, or had done so earlier, admitted that their expectation of being granted credit facilities after a short period of saving motivated their decision to allocate a part of their portfolio to this facility. However, there is a high level of dissatisfaction with the type and quality of services so far offered by these recently modified versions of the *susu* system. Most entrepreneurs indicated that repayment defaults were a major problem for them. The *susu* companies have this difficulty in view of the fact that they fail to keep adequate cash reserves and have been imprudent in the granting of loans. The low cash reserves and the difficulty in returning accumulated savings to clients is explained by a high rate of default in repayment of loans granted to some clients. Even though the amounts granted per client were not very large (the equivalent of six months' deposits after saving regularly for six months at a rate of 50 per cent for six months), the granting of this facility to many customers at once and the high rate of default have helped to erode whatever reserves these companies might have attempted to keep. The companies had hoped to finance further loans from the initial rapid growth in clientele. Following these shortcomings, the large *susu* companies have been forced to cut back extensively on the granting of credit facilities, which has subsequently reduced their attractiveness.

Competitive relationships in the credit market

The main question in Bell's (1990) discussion was whether formal financial institutions providing cheap credit to borrowers push moneylenders out of business. Using official data on indebtedness, he contended that claims by the Indian authorities of reduced usage of informal credit sources following the institution of formal facilities in rural areas needed to be treated with some reservation. Ghana lacks such data on general household indebtedness to both formal and informal credit sources, which makes it impossible to compare trends in their changes over time.

Before introducing our own observations of the application of credit in Ghana, however, a general discussion of substitution and complementarity between two goods emphasizes the responsiveness of demand for one good to price changes in the other, so that if:

$$\delta d_i/\delta p_l\ [p_l, y] > 0$$

the two goods are competitive, and if

$$\delta d_i/\delta p_l\ [p_l, y] < 0$$

they are complementary.

In the discussion of formal and informal finance, however, the application of price in such a deterministic manner (even if adequate arrangements were made to cater for internal inconsistency; see Russell and Wilkinson (1979)), loses relevance in view of the highly indeterminate relationship between price and demand in this less sophisticated financial market. Thus, for the moment, the discussion of substitution and complementarity will need partially to ignore the issue of price and operate more with quantities and responses to other factors such as availability of credit. This means that substitutability and complementarity need to be applied more in terms of the operative sense of the words.

In this regard, if it were assumed that total investments (I) made by any of our micro-enterprises would come mainly from personal equity and credit, then:

$$(1)\quad I = f(e_p, C)$$

where C is total credit available to the entrepreneur, and e_p is personal equity.

In view of the fact that credit may come from both formal and informal sources, (1) becomes

$$(2)\quad I = f(e_p, C_f, C_i)$$

if both sources are available to enterprise, where

C_f is total formal credit to enterprise, and
C_i is total informal credit to enterprise.

In a situation of complementarity between formal and informal credit, it would be expected that I would vary directly with both C_f and C_i. Similarly C_f and C_i would vary in different directions as I changes in a competitive relationship. That is:

$$\delta I/\delta C_f > 0$$

when

$$\delta I/\delta C_i > 0$$

in a complementary situation, and

$$\delta I/\delta C_f > 0$$

when

$$\delta I/\delta C_i < 0$$

in a competitive situation.

To test the above, data on the 100 small firms in Eastern Region were studied. As already mentioned, these were all enterprises that operated bank accounts, that could borrow from the informal sector if they wanted to, and had also undertaken some investment expenditure between 1985 and 1989. The results show that further analysis to study complementarity and substitution between formal and informal credit became unnecessary in view of the fact that C_f had turned out to be zero in most cases while C_i was also zero in a number of cases over a long period. In other words, both formal and informal credit played relatively insignificant roles in the promotion and development of micro-enterprises. One can only speculate on what decisions they would have made if both facilities had been available to them. Before doing that, however, the more general trends in credit application in Ghana are discussed here.

General trends in the demand and supply of credit

Growth in the banking system's claims on the private sector may be considered to be a fair indication of growth in formal credit usage. This may be supplemented by information on the private sector's share of total domestic credit in order to obtain a fair view of the use of formal credit in private business finance. As Table 1 shows, the claims of the banks on the private sector grew substantially in nominal terms between 1978 and 1988 (i.e. by 4,665 per cent). Average annual nominal growth in those ten years was, therefore, 436 per cent (see Table 1). In real terms, however, the claims on the private sector declined rapidly until 1983 and then began to rise again until 1986.

As nominal lending rates were held fixed for considerable periods of time, the real rates fluctuated considerably but remained negative (see Figure 1).

A comparison of Figures 1 and 2 (which shows real bank claims on the private sector) does not suggest any logical relationship between formal credit usage and lending rates in the period up to 1984 since the banks were rationing credit to the private sector. Between 1977 and 1982, the private sector's share of total domestic credit fell steadily from 13.6 per cent to 6.4 per cent. After 1984, however, when real lending rates became relatively more stable, lending by the banks also stabilized between 1985 and 1988.

Table 1 Interest rate changes and banks' claims on the private sector

Year	Nominal lending rate (%)	Real lending rate (%) sector (¢m)	Nominal claims on private sector (¢m)	Real claims on private	CPI 1980 = 100
1978	12.5	-31.25	739	17.15	43.1
1979	19.0	-22.93	796	11.95	66.6
1980	19.0	-20.72	940	9.40	100.0
1981	19.0	-45.03	134	26.19	216.5
1982	19.0	-2.70	1558	5.88	264.8
1983	19.0	-46.61	2838	4.80	590.1
1984	21.2	-13.26	5978	7.25	824.1
1985	21.2	-13.26	10,663	11.70	909.1
1986	23.0	-3.69	18,554	16.38	1,132.4
1987	28.5	-10.23	23,530	14.85	1,583.6
1988	26.6	-4.43	33,000	15.86	2,080.0

Source: IMF, IFS Statistical Yearbook, 1989.

Figure 1 Real lending rates

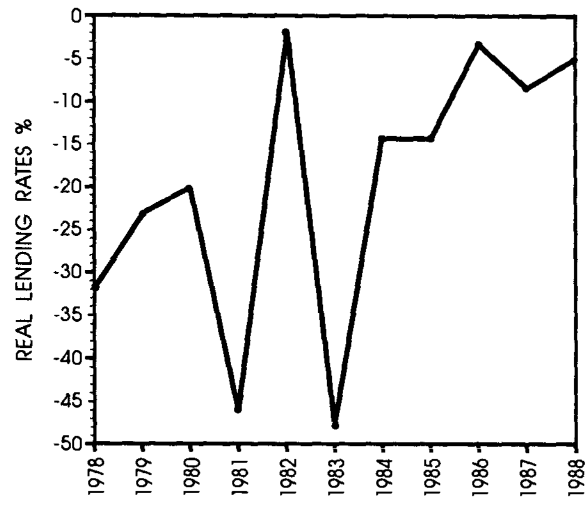
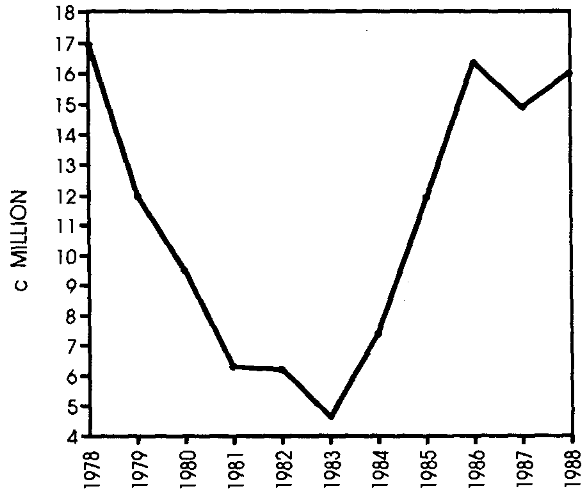


Figure 2 Real bank claims on the private sector



The period of declining real bank credit to the private sector coincided with a period that was characterized by negative attitudes to saving with banks attributed to a growing loss of confidence in the formal system (Aryeetey and Gockel (1990)). Of 1,000 market women interviewed in three Ghanaian cities, the proportion that saved with banks dropped from 49.1 per cent to 36.4 per cent. Aside from the growing lack of confidence in the banking system, what was considered to be a higher probability of obtaining an informal loan was also often an incentive for joining the *susu* system. Some caution must be exercised, however, in interpreting the described negative attitude to formal savings and the decline in formal credit. The decline in formal credit did not necessarily mean a growth in informal credit. Even though 65 per cent of the 1,000 market women could, in principle, borrow from the *susu* system, only 10 percent of them had ever financed any expenditures with credit from that system. Similarly, of the 100 micro-entrepreneurs who operated in the Eastern Region, only six had ever borrowed from proprietary moneylenders to finance investments in the period. Indeed, only 19 of them had applied informal credit, and in 13 of these cases the lender was either a friend or relative. The fact of the matter is that there was not enough informal credit to make up for declining formal credit. The picture portrayed above is quite different from Bell's observations in India where there was growth in formal credit, accompanied by growth in informal credit in many instances.

It is probably best to look at what happened to rural credit supply when rural banks were introduced into Ghanaian rural areas, ostensibly to improve the availability of credit to farmers. In 1977, there were only three rural banks in Ghana, but this number grew by an average of 10.6 per cent per annum to reach 120 by 1988. In the same period, the nominal value of loans and overdrafts grew from ¢174.0m to ¢1,457.0m. In real terms (1980=100), however, there was a decline in the yearly amount of credit made available to rural farmers/entrepreneurs from ¢7.0m in 1977 to ¢0.7m in 1988. By 1988 the average size of a loan to farmers was ¢20,000 (Aryeetey *et al.* (1990)) and this was more that 500 per cent smaller than the average size of agricultural loans in 1977 in real terms. According to IPC (1988), the indebtedness of rural households was generally low by 1988. The debts of rural households to formal institutions represented, on average, 1.6 per cent of their incomes. This figure had probably been declining over time, but there is no evidence that declining institutional agricultural credit is being replaced by informal credit.

The above trend may be in spite of the fact that it is estimated that the value of informal credit in rural Ghana may be as high as five times that of formal credit (IPC (1990)). We believe, however, that this estimate of the magnitude of informal credit places great premium on "credit" from friends/relatives. Discounting credit from friends/relatives, in view of the fact that its non-proprietary nature leaves repayment terms unclear (if any repayment is expected at all), the value of informal credit may not be that high. The general total demand for credit by small entrepreneurs is believed to be low in view of the fact that most of that demand is actually a demand for liquidity. This is explained by the fact that the formal indebtedness of most households does not exceed their financial savings (IPC (1990)) at a time when most of their assets are in illiquid (physical) form. In view of these observations, we suggest that the declining institutional credit is not being replaced by informal credit, as can be seen from the number of entrepreneurs who used informal credit.

Individual borrower choices and opportunities between formal and informal credit

The third scenario from Bell's (1990) analysis, "equilibrium with non-exclusive institutional contracts" comes close to our observed situation. Underlying this is the assumption that formal credit is rationed at a given interest rate which is lower than informal lenders' rates and, that granted there are no other higher costs, borrowers would first seek institutional finance, and that failing spill would over into the informal sector. This was observed in India (Bell, Srinivasan and Udry (1990)). In our own study, it became apparent that credit from informal sources would only be sought after failure to obtain bank credit. Fifty-four per cent of the entrepreneurs would first go to the bank, in spite of the relatively low probability of their being granted such credit. This is usually attributed to the fact that bank credit is much cheaper than credit from informal sources (a possible exception being credit from friends/relatives), and they do not have to go through any personal harassment in seeking and repaying loans, as is often associated with borrowing from moneylenders. Indeed, only 5 per cent of the entrepreneurs would contact a moneylender first when credit is desired, while 23 per cent would first approach friends.

Bell's analysis of the choices to be made, and their consequences, in the situation where borrowers who have been rationed out of the formal market spill over into the informal market, is illustrated in Figure 3, where

$E\pi$	=	expected profits of moneylender
$E\pi(\cdot)$	=	iso-expected-profit contour
L	=	size of loan
r	=	rate of interest
Ey	=	expected net income of borrower
$Ey(\cdot)$	=	iso-expected-income contour of borrower
$\Psi(\cdot)$	=	rationed institutional lending

The borrower's opportunity set is as depicted by the heavy curves in Figure 3.

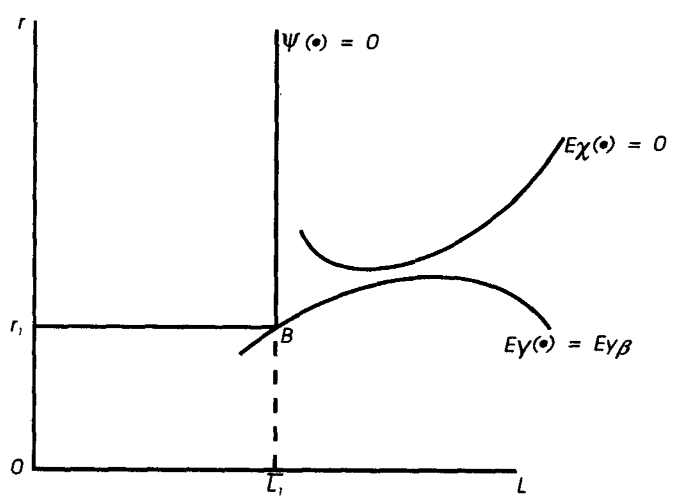
> The boundary of that opportunity set is made up of $\Psi(\cdot) = 0$ and an iso-expected-profit contour, which is a member of the lender's map drawn with the point $(L_i, 0)$ as origin to reflect the fact that the borrower seeks institutional finance first. The location and shape of that

> contour will depend on the private lender's knowledge of what dealings his client had with the co-operative or bank and the ease of entry into lending activities. (Bell (1990) pp. 319)

Faced with this opportunity set, the borrower seeks to maximize his expected net income by choosing the combination of loans that permits him to be "on top" of his expected income contour *Ey*. In Panel 1 of Figure 3, the borrower is provided with rationed formal/institutional credit at a rate of r_i, which places him at point *B* on the expected income contour, leaving his demand not satisfied. It is assumed here that "the lowest rate the moneylender could charge and still make non-negative expected profits, $(E\,\pi(\cdot) = 0)$ namely, *i*, exceeds r_i". This places the iso-expected-income contour of the borrower $Ey(\cdot) = Ey_B$ well below that lowest rate the moneylender can offer, which therefore, does not encourage the borrower to spill over into the informal segment of the market, even with unsatisfied demand.

Figure 3 Competition between an institutional and an informal lender: non-exclusive contracts

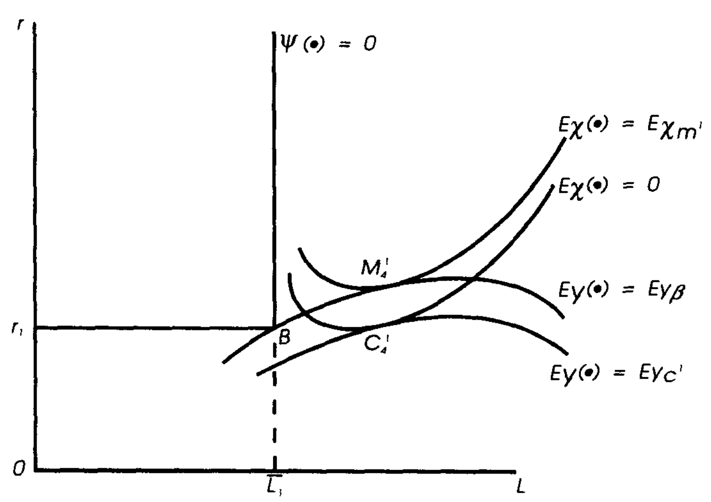
Panel 1: No spillover



Panel 2 introduces two situations where it is assumed that the expected income contour Ey_B is tangential (equilibrium) to the profit contour $E\,\pi(\cdot)=0$. The two situations depict, first, the outcome when there is free entry to the lending business and, second, when the moneylender is a monopolist. Granted that the moneylender knows the borrower has been rationed out of the formal market, he may make the borrower two possible offers depending on the extent of "monopoly" he enjoys in the informal segment of the market.

> First, if there is free entry into moneylending for those willing to invest in acquiring inside knowledge about potential clients, then lenders will earn zero expected profits and each borrower will face a menu of loan contracts described by the contour $E\ \pi(\cdot) = 0$. In that case the borrower will choose point *C'*, where an iso-expected net-income contour is tangent to $E\ \pi(\cdot) = 0$. Second, private lenders may have sufficient market power to keep would-be borrowers at their reservation levels of expected net income, given the opportunities defined by $\Psi(\cdot) = 0$. In that case the moneylender will choose point M', where an iso-expected-profit contour is tangent to $Ey(\cdot) = Ey_B$. This involves making the borrower an all-or-nothing offer of $(L_M' - L_i r_M')$ (Bell (1990) pp. 321).

Panel 2: Spillover



Source: Bell (1990)

In the Ghanaian case, all three situations, as depicted in panels 1 and 2, are observable. In the first place, there is no guarantee that the rationed-out borrower will spill over into the informal segment. Our study suggests the following alternatives to institutional credit. For the 80 per cent of the micro-entrepreneurs who did not apply informal credit, the usual reactions to the non-availability or inadequacy of formal credit were as follows:

1. scale down considerably planned investment to equal received formal credit, if any;

2. use personal savings of the entrepreneur or enterprise (when they can be separated) to finance part or all of planned investment this is discussed further below;

3. abandon planned investment.

Spillovers into the informal segment are not a very common way of financing micro-enterprises or business activity. There is little demand for credit from the proprietary moneylender for investment in economic activity. Enterprises that are likely to borrow from proprietary moneylenders for investment are either involved in trading in urban areas (with a relatively high turnover over a short period) or farming where rather small sums are required for a season. In view of the fact that such demand is treated by all concerned as an "emergency", and there are not many options available to the borrower, of which the moneylender is aware, equilibrium is likely to occur at M'. Such traders usually pass on the high cost of funds to their customers. The demand for credit facing the moneylender in Ghana has been described as price inelastic (IPC (1988)), in view of the fact that such credit is required in emergencies, forcing the borrower to take any given interest rate. Most moneylenders enjoy a spatial monopoly.

Complementary relationships in the financial market

As observed above, a complementary relationship between the facilities of the formal and informal segments of the financial market would exist if the growth in the demand for one was not at the expense of the other. Thus, for example, if growth in investment which relies on formal credit creates additional capacity that can be met only with informal credit, the application of the two types of credit may be regarded as complementary.

In other words, based on the "new structuralist" thinking on the role of the informal sector, that is, as a provider of residual finance, it is generally expected that the joint impact of the two sectors on the economy will depend on the volume of residual financing carried out by the informal sector in relation to total financing requirements. In this case, residual finance is regarded as additional (informal) finance coming to investors in excess of what is available to them from the formal system. This increased demand for credit is, therefore, created by the growing use of formal credit in a growing economy.

What the data suggest is that the significance of informal credit as a means of residual financing in this manner is very limited. As we noted earlier, only one entrepreneur out of 100 interviewed obtained the full amount of credit requested from the bank. Of the 26 enterprises that received only a part of the requested amount, only one used credit from informal sources (friends and relatives) to complete the planned investment expenditure. This trend is interesting in view of the fact that credit from informal sources has been likened to Lewis' unlimited supply of labour and given a horizontal supply curve (Srivastava (1990)). This relationship is based on the suspicion that individuals in developing countries are often "forced to hold money in excess of desired stock", as exemplified by the so-called "mattress money" holdings. Srivastava (1990) suggests that the amount of money individuals hold depends on the availability of alternative assets and the costs of acquiring them. It is obvious that much importance is attached to credit from "friends and relatives" in this context, but from our data, only 14 percent utilized such credit for their investments in the enterprises studied.

That the present situation in Ghana does not conform to one of unlimited supply of credit (both formal and informal) may be attributed to the fact that, aside from the known institutional constraints to credit expansion in the formal system (Aryeetey *et al.* (1990)), real household incomes, eroded extensively in the 1970s and early 1980s, do not appear to have recovered to earlier levels. Per capita GNP grew at -1.6 per cent between 1965 and 1987 (World Bank (1989)).

Thus, the use of proprietary informal credit in a complementary role to formal credit, as defined above, is not widespread. Evidence from Steel and Webster's (1990) study of responses to adjustment policies by micro-enterprises suggests that even though the economy is growing, and entrepreneurs are investing, micro-entrepreneurs are investing the least, yet it is they who would be expected to apply for informal credit. Probably there is very little formal credit to carry them to an investment threshold from where further use of expensive informal credit can be afforded.

It is interesting to note the extent to which incomes from other activities of the same entrepreneur were used to meet their financing requirements. For a significant 18 per cent, the first reaction to a shortage in finance in one enterprise would be to resort to finance from their farming activity, or some other income-generating activity they undertake, from which income is more or less assured. An example of such an activity is trading. The large number of entrepreneurs who indicated that they would use their own savings to invest if they failed to obtain formal credit, were actually referring to income from other economic activities. This approach to meeting credit requirements brings out the importance of interlinked activities in enterprise finance. Of the small-scale entrepreneurs studied by Riedel *et al.* (1988) in another medium-sized town (Techiman), 61.3 per cent were engaged in farming or trading in other household goods, and income from these was used in an interlinked manner for investment purposes.

In a welfare sense, the utilization of incomes from one economic activity to subsidize another may bring the entrepreneur into a lower net iso-income curve. This would be so if the productivity of the subsidized activity is less than the other activity, but is being maintained only because the entrepreneur would prefer to be known as such instead of as a less prestigious farmer.

An intermediary role for the informal sector

Bell (1990) argues that if the moneylender is granted access to low-cost institutional credit, this will definitely lower the cost of funds to him, irrespective of the market condition. Thus, whether he is a monopolist or perfect competitor, it should lead to lower interest rates. For his clients, the entire gain from the lower cost of funds will be captured if the moneylender is a perfect competitor and marginal costs are constant. The gains will be shared if the lender is a monopolist but the borrower has access to information not known to the lender, i.e. "an active threat of strategic default by the borrower". The monopolist lender keeps the entire gain from a lowering of the cost of funds if he can have an exclusive contract.

From this, it is obvious that greater benefits would be reaped by the economy in general if more moneylenders had access to institutional credit. But access to institutional credit is generally limited for informal moneylenders. Bell (1990) noticed in India that moneylenders who were known as such to banks, had less access than others who were not known, but actually practised moneylending, e.g. traders. Thus, while in 1952 only 4 per cent of village moneylenders in India borrowed from commercial banks, 35 per cent of village traders did. Similarly, 25 per cent of urban moneylenders who had a number of guises also borrowed from commercial banks, often for re-lending. In comparing lending resulting from an intermediary role for informal lenders to total credit used by households, however, Bell concluded that this was insignificant.

In Ghana, interviews with 12 moneylenders in Accra, Hohoe and Agona Swedru during the first phase of this research, revealed that eight of them saved with commercial banks and had actually borrowed from them before. Interestingly, however, "only two of them suggested that credit from banks was used to promote their lending business" (Aryeetey and Gockel (1990)). Indeed, it is likely that in periods when institutional credit has been more readily available to the private sector in Ghana, moneylenders have taken advantage of this facility, but only because they have not revealed information about the activity to bank officials. Bank officials quite openly admit that they are not interested in promoting the businesses of moneylenders since the process of increasing the original interest rate before passing the borrowed sum on to the borrower is regarded as exploitative. In other words, the moneylender obtains institutional credit only because he is regarded as a rich cocoa farmer, transport owner or big trader.

Most moneylenders operate their lending businesses alongside other businesses, and profits are often switched between the two, depending on which needs re-capitalization. Quite often also, no separate accounts are kept for the two. Thus institutional credit to the moneylender becomes essential when all his businesses need re-capitalization. In this situation, only a part of the borrowed funds goes to support the lending side of his business.

Considering that institutional credit to the private sector has not been forthcoming over the past decade (Aryeetey *et al.* (1990)), it is not likely that the inadvertent use of the informal lenders as intermediaries has been a common or widespread method of allocating credit in the system.

The impact of the limited amount of disbursement of credit that has been done in this way may also be negligible. The two moneylenders who admitted lending borrowed funds said they did not lower their interest rates as a result of the lower cost of funds. This was largely in view of the monopolies they enjoyed and the price inelasticity of the demand for credit when such credit was required to meet an emergency.

III Linkages between formal and informal institutions and their significance for savings mobilization and financial intermediation

ıere are three possible scenarios for studying the extent of financial termediation from savings and borrowing patterns within the informal sector. ıe first would be a situation of no intermediation, as would be the case ithin the rotating savings or ROSCA arrangements. The second would be that intermediation occurring with informal units channelling mobilized savings to formal circuits for possible onward lending, as is the case with operators "single-collector-*susu*" businesses depositing daily mobilized savings with nks. The final scenario would be that of intermediation occurring completely thin the scope of informal activity, as is presently being attempted by large ganizations entering the *susu* business.

In view of the fact that we regard the first and last scenarios above as being rrently marginal and also inconsequential for the relationship between formal d informal institutions, we dwell on the second scenario in this part of the ıdy. As suggested in the introduction, an area of linkage between the formal d informal financial sectors that would be significant for the development financial intermediation is the fact that most *susu* collectors involved in the ngle-collector-*susu*" system use deposit facilities made available by banks · safe-keeping purposes (Aryeetey and Gockel (1990)).

The implication of such a relationship is that the banking system may ›vide an avenue for carrying out financial intermediation with informally ›bilized deposits. In other words, the intermediary role of the banking system enhanced through a growth in the volume of deposits (a part of the money ck) that originates from informal mobilization efforts. Its impact will depend what influence it has on the multiplication process. Thus, in any period, ınges in the money stock (*Ms*) would be dependent on changes in the way ;*u* collectors choose to keep the savings deposited with them and what banks with these. This is summed by the identity:

(3) $M^s = mH$

where H is currency (C) plus reserves (R) with the Central Bank

(4) $H = C + R$

and m the multiplier can be expressed as

(5) $m = \dfrac{1+\alpha}{\alpha+\beta}$

where α is the cash/deposit ratio and β is the reserve/deposit ratio (see Dornbusch and Fischer (1978)).

It is generally expected that changes in the money stock should arise from the way the monetary base H is directed by the Central Bank and the way the multiplier changes from time to time (see Cuthbertson (1985)):

(6) $\Delta Ms = m\Delta H = H\Delta m$

But changes in H and m will only follow changes in the flow of deposits and the minimum reserve requirements as well as cash the public wants to hold. Thus:

(7) $H = f(D,rr,C_p)$

(8) $m = f(D,r_b,C_p)$

where D is the total deposits with banks
rr is the required reserve ratio
C_p is cash held by the public
r_b is actual reserve assets of banks.

With this, an ideal outcome of our present efforts would have been to show that the growth of the money stock in Ghana was dependent on changes in the deposits mobilized informally and to establish the extent to which changes in that stock could be attributed to occurrences in the portfolio allocation behaviour of *susu* collectors. This has not been possible in view of the inadequacy of data available at banks. Data on bank balances of *susu* collectors in all the banks within a half-kilometre radius of the largest markets in Accra, Kumasi and Takoradi were sought. This was because, as suggested earlier, most *susu* collectors "dump" whatever they collect in a day in one of the commercial banks near the large markets in all three cities used for the first phase of this study. Even though this may not have represented the entire deposits of the sector held by the banks, it was expected to have a significant impact on the growth in the money stock.

In view of the above, the identities expressed are not given any behavioural content. We only disaggregate them to highlight the significance of informally mobilized savings. Thus, if total money stock was taken as total deposits (both formally mobilized and informally mobilized) with banks plus currency, then the following identity may be used:

$$(9)\quad M^s = D + C$$

where D is total deposits (demand deposits)
C is currency held by the public.

If M^s is decomposed in terms of method of mobilization, we obtain:

$$(10)\quad M^s = D_f + D_i + C$$

where D_f is formally mobilized deposits, and
D_i is informally mobilized deposits.

Thus:

$$(11)\quad \Delta M^s = f(\Delta_f, \Delta D_i, \Delta C)$$

Use of formal deposit facilities by *susu* collectors

Even though the paucity of data does not permit an accurate estimation of the significance of informally mobilized savings to the growth of the money stock, data assembled from the collectors themselves, as well as from some banks, throw light on the significance of this phenomenon. It will be shown here, therefore, that there is a sizeable mobilization effort in relation to total mobilization achievements of the banks that originate from *susu* collectors.

General information about susu collectors

The *susu* collectors studied here all belong to the Greater Accra Susu Collectors Association which currently has a little over 500 registered members. The information was obtained from questionnaires distributed amongst them at one of their regular monthly meetings in Accra. The researcher participated in the meeting in order to observe at first hand the members' discussions of common problems and their comprehension of official attitudes towards them. Thus only those members who attended the monthly meeting of November 1990 had the opportunity to fill in the questionnaires. This provided us with 151 respondents out of a possible 500.

Of the 151 respondents only 16 were female. One female collector found herself involved in the business out of a conviction that women were better placed to provide such a service to other women. (Most of the clients are women; see Aryeetey and Gockel (1990).) It is obvious, judging from the number of years individual collectors had been in the business, that *susu* collection is still a very active occupation for many people. While 41 per cent of the people had been collecting *susu* for more than three years, the remaining 59 per cent began their business less than three years previously. Thus *susu* collection is not just another activity for retired teachers or other public servants. Indeed, for 72.8 per cent of the respondents, *susu* collection was their only occupation; these were mainly men aged between 25 and 50. For the remaining 27 per cent, trading occupied about a third of them, while seven collectors were retired public servants.

Analysis of the savings patterns of susu collectors

Susu collectors usually have three options when deciding what to do with deposits mobilized from market women and others. These are a) deposit them with a bank (usually a demand deposit), b) invest in their own business, if possible, and c) lend to others.

The fact that the first option dominates in a situation where hardly any returns accrue to the asset, is an indication of the fact that the collectors cannot presently attach prime importance to the direct rate of return on the asset itself in view of the short period over which they can hold the deposit. More importantly, however, it is also an indication of the "primitive" financial structure which is shown by the lack of very short-term financial instruments. The collectors usually have to return the daily savings of the market women to them after 30 days.

Following the choice of this short-term asset by the collectors, it is argued here that *susu* collectors perform a significant intermediary role between savers and the banking system and other borrowers. The importance of this role lies in the several attributes of the role itself. These are:

1. the sheer magnitude of savings mobilized in this manner and therefore the enhanced opportunities for formal intermediation;

2. the advantages of the savings habit that it helps to develop in the system's clients;

3. the reduction in the mobilization costs of formal banks since they pay nothing for the service performed on their behalf by the *susu* collectors, and the reduction in the number of people queuing up at banks to make deposits and withdrawals.

Only one of the 151 *susu* collector respondents studied did not have a bank account at the time. Since it was a regulation of the association that each member operated a bank account, this "anomaly" was explained by the fact that this collector was new and was in the process of opening an account. One hundred of them operate a current account only with the banks, while 31 operated both a savings account and a current account. Twenty persons operated a savings account only.

Saving with indigenous banks dominates the choice of banks. Thus, 117 out of the 151 respondents held accounts with several branches of the Ghana Commercial Bank (a state-owned bank) in Accra. In eight of these cases, however, the collectors had accounts with another bank notably the Social Security Bank, the Co-operative Bank and the National Savings and Credit Bank. Only three of the respondents saved with a foreign bank. The collectors explained their choice of indigenous banks by "the fact that the large well-established foreign banks were not interested in granting any concessionary terms in their dealings with them". They see indigenous banks as being more sympathetic. Indeed, the Managing Director of a large foreign bank insisted he did not know that his bank held deposits for *susu* collectors. In fact, until recently, banks generally adopted the attitude that the *susu* system had nothing to do with formal banking.

Susu collectors usually choose banks that are not too far away from the areas in which they operate. This is in view of the possible need to make more than one visit to the bank in a day. The average distance from the market of operation to the banks used by collectors is 3.0 km, and an average of three deposits is made in a week. Aside from it being a regulation of their association that mobilized savings be kept with banks, the security banks' offer was the main reason for using their facilities.

An average of ¢58,000 was collected daily by each of the 151 respondents, who make an average daily deposit of ¢500. Out of the total weekly collection, the *susu* collectors deposit an average of 74 per cent in their bank accounts, and 56 per cent of the respondents deposited the entire collection. For those who did not deposit the entire collection, the difference was either invested in a business by the *susu* collector himself or lent to very trusted clients.

The regularity with which *susu* collectors accumulate certain balances with the banks in the course of the month and then run these down at the end of the month probably needs to be a focal point in the relationship between banks and *susu* collectors. Data supplied by our respondents show that towards the end of one month in 1990 (shortly before the account was emptied for payments to clients) *susu* collectors maintained an average balance of ¢1,180,940. By the middle of that month, when they were still mobilizing savings, their balances averaged ¢667,572. In other words, their individual balances rise steadily throughout the month, peaking just before the last day of the month, and then drop sharply. These figures from the collectors themselves are corroborated by evidence from some of the key bank branches they use. Data obtained from one branch of the Ghana Commercial Bank, which had the highest number of *susu* collector-account holders (46), show that the average balances of the collectors fell to an average of ¢25,598 per *susu* collector on the last day of one month in 1989 after the collectors had made significant withdrawals to make payments to their clients. For that branch, the total balance of *susu* collectors by mid-December 1989 was ¢7,930,963, which dropped to 12 per cent of that figure at the end of the month. In another branch of Ghana Commercial Bank with 31 *susu* collector-account holders, the average balance on the last day of December 1989 was ¢184,354 after dropping by over 80 per cent from the mid-month figure. In a relatively small branch near a large market, deposits from *susu* collectors formed over 40 per cent of total demand deposits in one month.

Some banks are beginning to see the significance of the *susu* system in their operations. This is shown by the fact that they are now beginning to keep track of deposits from *susu* collectors by identifying such accounts. For such banks, a major question is whether it is possible to do much "turning around" of these rather short-term deposits in the period during which they hold them. Most bankers insist that this would not be a problem if the economy was rapidly growing and short-term finance was being demanded. It is likely that the sharp drops in balances on the last day of each month will make conservative bankers develop an attitude of indifference towards *susu* collectors' accounts. They are unable to develop the appropriate instruments for dealing with this potential source of long-term finance.

It is not surprising that *susu* collectors still complain of the banks not appreciating their usefulness to the banking system. One major demand that collectors make of banks is for the waiving of the payment of ledger fees which would help reduce their own costs and improve their profit margins, and thereby possibly reduce the service charges paid by clients. Another is the allocation of particular bank clerks to handle their deposits and withdrawals at the various counters. This should help reduce transaction time considerably and allow them more time to carry on with savings mobilization. It was for these reasons that the Greater Accra Susu Collectors Association encouraged its members to save with the Ghana Commercial Bank. The rationale behind this strategy is that the large deposits would add weight to their voice. They hope that this bank will soon grant them the required concessions.

IV Summary and policy implications of the study

This report has attempted to outline and study linkages between formal and informal financial sectors in Ghana in the areas of credit allocation and savings mobilization. The findings may be summed up as follows.

(a) Despite the segmentation of the financial market in Ghana, there are significant interactions between the formal and informal segments in the areas of credit allocation and savings mobilization.

(b) The linkages in credit allocation may have elements of both competition and complementarity, and to a far lesser extent an intermediary role for the informal sector between borrowers and the banking system. Indeed, we would suggest that a discussion of complementarity and substitution in the relationship between the two sectors is currently obscured by the non-availability of both types of credit facilities for those who would have liked to use them in any manner. Credit from both sectors towards financing small enterprises, which dominate national production after agriculture, is very limited and is not relied upon by entrepreneurs. For policy-making purposes, making credit available in both sectors must supersede all other considerations.

(c) The very limited extent of competition between formal and informal credit suppliers, partly born out of the limited ability of both to put credit on the market, does not help borrowers to improve their welfare by negotiating on the two markets, and therefore denies them access to well-priced investable funds.

(d) On the savings side, a significant amount of private-sector savings held by indigenous banks is initially mobilized by the *susu* collectors of many towns.

(e) Banks take for granted the service performed on their behalf since they suffer from excess liquidity and are not looking for avenues to lend.

(f) Thus, the linkages between the formal and informal systems currently provide no positive benefits for borrowers or savers, and subsequently to the economy as a whole, since they do not yet encourage local investment.

In this situation, the following may be proposed.

1. An improved ability of both formal and informal institutions to lend to entrepreneurs must be paramount in any government financial sector policy reform. For the formal institutions this may come about through:

   (a) an improvement in the general business climate that improves the profit-earning capabilities of enterprises; and
   (b) the adoption of better methods for risk assessment, risk management, and preparedness to undertake risk.

   For informal lenders, an improved lending ability can only come from improved household incomes since this is the main source of lending capital.

2. In view of the better local information networks that moneylenders possess, more open use could be made of them in channelling formal credit to light-risk borrowers. For this, moneylenders could be permitted to operate as agents of banks, and thereby lend within given interest-rate ranges that ensure them adequate profits. Such rates may well be below what may be regarded as "usurious" rates. Through this, banks may reduce their risk burdens—since they share this with the moneylender—and improve upon the management of credit since the moneylender possesses superior knowledge of clients.

3. Since an improved lending climate is expected to lead banks to raise the level of their liabilities to match their growing assets, savings mobilization will be boosted. To encourage *susu* collectors to assist in this process will call for some incentives to the collectors. These may include:

   (a) the application of preferential deposit rates (higher than the rates of return on their other opportunity sets) that encourage them not only to use the facility more, but also to discern recognition of their role in savings mobilization by banks;
   (b) the assignment of "special" clerks or tellers to *susu* collectors at large branches patronized by them;
   (c) waiving of all charges and fees on demand deposits of *susu* collectors by banks.

These measures would encourage *susu* collectors to continue using banks, instead of investing part of their collections in trading activities, and thereby open up the financial system for a more effective role in national development

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AFRICAN ECONOMIC RESEARCH CONSORTIUM

AERC
CREA

P. O. BOX 62882
NAIROBI, KENYA

TELEPHONE (254-2) 228057 225234
215898 212359 332438 225087

TELEX 22480

FAX (254-2) 219308

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ISBN 1-897621-03-5